#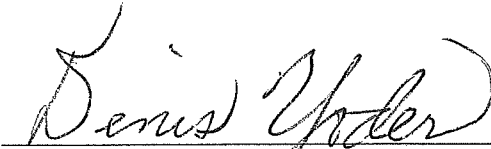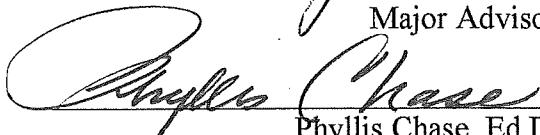 Effectiveness of Remote Versus Hybrid Instructional Settings for English Language Learners During the COVID-19 Pandemic

Laura A. De Adder
B.A., MidAmerica Nazarene University, 2005
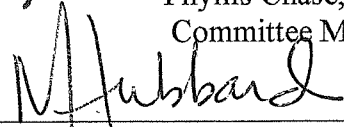M.S., MidAmerica Nazarene University, 2007

Submitted to the Graduate Department and Faculty of the School of Education of Baker University in partial fulfillment of the requirements for the degree of Doctor of Education in Educational Leadership

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Abstract

According to Jelińska & Paradowski (2021), "In the spring of 2020, schools across the world closed in the effort to reduce the transmission of the COVID-19 virus, throwing educational systems into disarray, disrupting the schooling of over 80% of the students worldwide" (p. 4). Throughout the United States, schools were forced to close and adopt "distance learning supports that varied in degree and type" (Hamilton et al., 2020, p. 6). The purpose of this quantitative causal-comparative study was to examine the effectiveness of remote instruction versus hybrid instruction in providing educational services for English language learners (ELLs) in a Midwestern school district during the 2020-2021 school year. The analyzed data consisted of the mid-year NWEA Measures of Academic Progress (MAP) Growth reading assessment achievement scores of a cohort of ELLs, from third through fifth grade in a Midwestern suburban school district. The 2019-2020 school year was used as a baseline year, and 2021-2022 was used as a post-COVID-19 year to identify the impact that the remote and hybrid instructional year may have provided. ELLs' NWEA MAP Growth reading assessment scores were compared prior to, during, and after the implementation of the remote and hybrid instructional settings to determine student achievement by instructional setting. The findings of the study revealed that the test scores of the ELL cohort did increase as they progressed through the three grades. There were some differences in test scores based on the instructional setting (remote versus hybrid), but the differences were not significant.

Dedication

I would like to dedicate this work to my daughters, Scarlett and Bridget. May you find a calling or career in life that brings you as much passion as being an educator has for me. I hope to instill in you the will power and desire to follow your dreams, and never give up.

To the many ELLs and immigrants throughout our nation: As an educator, I have always felt called to help as many ELLs as I can, and that it is my responsibility to meet the needs of ELLs in the best way possible. I hope to make a positive impact and difference in the lives of ELLs and their families for many years to come.

Acknowledgements

I would like to first acknowledge my parents, who taught me from a very young age to always try my best, and to never give up on what I believe is important. Thank you for your support and encouragement with sticking through my program, even when life brought about its many challenges. Thank you, Mom and Dad, for believing in me, and for your many words of wisdom and reassurance. To my sisters, Julie and Stefanie De Adder, I would like to thank you for your encouragement and support as I have gone on this journey these last few years.

Next, I would like to thank my advisor and research analyst, Dr. Denis Yoder, and Dr. Peg Waterman. Thank you for sticking with me through the many changes and revisions of this dissertation, especially while life through the later stages of the pandemic complicated the process. I appreciate your continued encouragement, and bi-weekly meetings to help keep me stay on track and progressing. I enjoyed our many conversations together and thank you for the guidance you gave me through this process. I would also like to thank Dr. Phyllis Chase for giving me guidance and being a part of my committee. I appreciate you taking the time to help me during part of this journey.

To my colleagues of Cohort 22: I will forever enjoy the memories that were built while we spent our weekly meetings together, through the thick and thin, both prior and during a pandemic. We made it through a doctorate program through one of the hardest times our world has gone through. I would also like to especially acknowledge Lisa Morino, who continued the journey with me after our weekly meetings in holding me accountable through our dissertation work sessions. I loved getting together and being there for one another along the way.

To the many coworkers, and mentors throughout my district, especially Kristie Darby, Dr. Michael Schumacher, and Dr. Michelle Hubbard, thank you for your guidance and mentorship along the way through my building and district field experiences. I learned more from you than you will ever know and hope to someday to be as a great of a leader as one of you. Working with you and seeing some behind-the-scenes building and district-level decision making processes reaffirmed my desire of being a leader in education. Also, Dr. Hubbard thank you for being a member on my committee. It means so much to have your support and time you have given to help guide me along the way.

Further, I would like to acknowledge Joe Burris, who supported and encouraged me through the many ups and downs along the way. You helped me to not give up when things got tough and believed in me even when I doubted myself. Thank you for being my cheerleader, patiently giving me the space and time I needed to work on the many hours of writing, researching, and time needed to complete this daunting stage in my life. You will never know how much your love and support has meant over these years.

Lastly, I want to acknowledge Scarlett and Bridget, who sacrificed time with their mom while I worked on completing a goal and dream in my life in becoming the first doctor in our family. For the many trips to Starbucks to work on schoolwork, or the hours I missed at home with you while I attended class or worked on district field experiences and other work events to help further my experience and education, I appreciate your support, love, and encouragement along the way.

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Chapter 1

Introduction

Throughout the United States, there has been an increase in the student population of English Language Learners (ELLs), also known as English Learners (ELs). According to the U.S. Department of Education (2022), "The percentage of public-school students in the United States who were English Learners (ELs) was higher in fall 2019 (10.4 percent, or 5.1 million students) than in fall 2010 (9.2 percent, or 4.5 million students)" (p. 1). As early as 2014, Folorunsho noted the effect and great importance that this increase had on the academic, economic, and social success of ELLs. A variety of instructional methods have been implemented across the country, and for some school principals and district leaders, such differences in instructional strategies can be the source for differing opinions on what are the best methods for teaching and meeting the language needs of ELLs (Mady & Masson, 2018). Some research has supported that collaboration between general education teachers and ELL specialists can be an effective method for meeting the needs of ELLs (Bell, 2011). However, during the 2019-2020 COVID-19 pandemic school year, collaboration among teachers and methods for teaching students in public schools completely changed across the country. Schools were forced to close and adopt different types of schooling, such as distance learning supports and varying forms of remote schooling (Hamilton et al., 2020). According to Reilly (2020), "By late March [2019], 46 states had closed all schools, and approximately 55 million K-12 students were either trying remote learning or not getting any instruction at all" (para. 9). Students received their education electronically through video conferencing, using synchronous or asynchronous instructional methods, with a tablet or computer, depending

on what device was provided by the district. However, some students did not receive remote instruction for the whole school year. Some students who were not assigned to remote instruction were placed into a hybrid model, where some of their instruction was remote, and then during other parts of the year, the students returned to school in person (*Map: Where Has COVID-19 Closed Schools? Where Are They Open?*, 2020).

Background

Across the United States, remote schooling continued for the 2020-2021 school year, while district leaders offered parents of K-12 school-age children a choice of a variety of instructional models including online, in-person, or hybrid models from which parents were able to choose (Lehrer-Small, 2021). Throughout the nation, school districts offered the option for parents to allow their child(ren) to attend school part or full time, based on the recommendation of the county health department where they lived. As a result, in the fall of 2021, when most students returned to in-person learning, some students received their education at home through remote learning for over a year, while other students received some or all their education during the 2020-2021 school year in person (Miller, 2020). For those involved, whether it be parents, educators, or other adults who had an interest in the educational system, the question of whether remote learning was as effective as in-person learning was often discussed, questioned, and debated. As cited by Huffman, *The Washington Post* described in March of 2020 that "the United States is embarking on a massive, months-long virtual-pedagogy experiment, and it is not likely to end well" (para. 1).

More specifically, when looking at the effectiveness of remote learning, there has been interest in studying the effects of different types of instructional methods on

different types of student subcategories including ELLs. Throughout the country, school district leaders and teachers were thrown into a method of instruction through remote learning that many educators were not trained or prepared for (Creemer, 2022). For some students and families, remote learning worked well and students were able to be successful in continuing to learn and grow academically (Creemer, 2022). However, for others, the challenges of remote learning had negative effects and implications on students' academic progress (Creemer, 2022). Since it is the responsibility of every school district to help students grow academically, it is imperative that district leaders have a good understanding of the implications and benefits of different types of instructional models and settings.

Public schools are given additional funding for ELLs; therefore, it is also important to discover which methods of instruction are the most effective in meeting the needs of ELLs (DeNisco, 2015). Financial reimbursement for ELL instruction is provided through Title III funding from the federal government. Forty-six states, including Kansas, provide additional state funding as well (DeNisco, 2015). According to DeNisco, "the federal government provides grant funding to states through Title III to help ELLs with language acquisition and with meeting content standards" (para. 3). For districts to receive financial support for ELLs, districts must report every minute an ELL is under the supervision of an ELL certified teacher. School districts are required to calculate the number of instructional minutes that ELLs receive and then submit for financial reimbursement for the programs the district provides for the students (Kansas State Department of Education [KSDE], 2022a). Therefore, a larger number of educators

who are ELL certified often reflects a greater amount of school district allocation based on ELL student minutes served (KSDE, 2022a).

Statement of the Problem

Until 2020, remote or hybrid instructional settings were not practiced in a widespread manner across the United States (Dorn, Panier, Probst, & Sarakatsannis, 2020b). Therefore, the limited use of these instructional methods resulted in a lack of research literature and knowledge of which instructional methods are the most efficient and effective to meet the needs of ELLs, when comparing remote versus in-person, which often could be characterized as hybrid instruction. For ELLs, the pandemic resulted in an especially challenging experience in meeting their needs. Although there has been debate and exploration into research-based teaching strategies and English to Speakers of Other Languages (ESOL) program models that have been impactful in determining ELLs success, there has been limited research in a comparison between remote versus hybrid instructional settings (Bowles, 2015). As stated by KSDE (2014), "Eligible students [ELLs] must be offered ESOL services with an ESOL endorsed teacher. Service types include push-in, dual language, bilingual, ESOL class period, modified instruction, and pull-out. Other types of services may be offered in some districts" (para. 4). Local districts are responsible for selecting the types of services to best meet the needs of the ELLs.

As stated by Creemer (2022), "Parents had to help students navigate between the differing expectations for each learning environment" (p. 9). In the school district analyzed for this study, for those ELLs who received hybrid instruction, there were periods of quarantine and closures due to COVID-19 exposure and fluctuating infection

levels which resulted in having to switch instructional settings (████████████████ ██████, 2020). In the summer of 2020, parents were given an opportunity in this study's school district to choose to have their child remain with remote instruction or switch to a hybrid method of instruction, which included both in-person and remote learning. At the beginning of the school year in August 2020, the number of COVID-19 cases was still elevated, and there was uncertainty on how COVID-19 would spread once students went back into the classroom. To minimize the spread of the virus, a hybrid-learning model was created. In this model, students were given an opportunity to receive instruction both remotely and in-person, which varied by the week depending on infection levels. The district chose this option as an opportunity to allow for flexibility to provide options for isolation, quarantine, and school closure if necessary due to increased levels of infection. The goal was to increase the opportunity for students to be in-person, but to do so in a safe manner, and to allow parents input in this decision for their children (██████ ████████████████, 2020). Since this was the first time both instructional options were offered (remote or hybrid), more research should be conducted surrounding the background, details, and analysis of the most effective ways to meet the academic needs of ELLs, whether that be through a remote or hybrid instructional setting.

Purpose of the Study

The purpose of this quantitative causal-comparative study was to examine the effectiveness of remote instruction versus hybrid instruction in educating ELLs in a Midwestern school district in the 2020-2021 school year. The 2019-2020 school year was used as a baseline year, and 2021-2022 was used as a post-COVID-19 year to be able to identify the impact that the remote and hybrid instructional year may have provided. The

two instructional methods examined in this study were remote and hybrid instruction. The analyzed data consisted of the mid-year NWEA Measures of Academic Progress (MAP) Growth reading assessment achievement scores of a cohort group of ELLs, from third through fifth grade. A comparison of three mid-year achievement sets of scores served as the dependent variable, as indicated by the assessment scores reflecting the prior year's instruction. The type of learning instruction that the ELLs received during the 2020-2021 school year was the independent variable, either receiving instruction in a remote or hybrid setting. A hybrid setting was characterized by a combination of remote and in-person learning throughout the school year.

Significance of the Study

Throughout the United States, there has been steady growth in the population of ELLs. The Migration Policy Institute (2021), stated that, "in the past three decades, as nearly 30 million immigrants, both authorized and unauthorized, have settled here seeking a better future for themselves and their children" (p. 1). In Kansas, as stated in a 2015 statistical analysis, 10.6 % of students in public education were classified as ELL, an increase from 7.5% in 2000, making Kansas the state with the largest increase of ELLs across all the United States during this time (U.S. Department of Education, 2022). As the number of immigrating families continues to increase in the United States, the number of ELLs will continue to grow as well. Schools and districts must address challenges that may arise in meeting the growing population of ELLs' individual needs throughout their education (Migration Policy Institute, 2021). Since there has been a steady increase in ELLs throughout the nation, this study helps to distinguish the effectiveness of different types of instructional settings and determine if there is a

difference in academic test scores between those that received remote versus hybrid instruction. At the time of this study, there was little research comparing remote versus hybrid instructional settings for ELLs. This study can further the knowledge of successful instructional strategies when teaching ELLs.

Delimitations

The subjects of the current study consisted of a cohort of elementary ELL students in a suburban Midwestern school district. The assessment chosen to measure the students' achievement was the NWEA MAP Growth reading assessment. The study involved a comparative analysis of mid-year 2020, 2021, and 2022 assessment scores between remote and hybrid instructional settings throughout the chosen district.

Assumptions

Some assumptions made regarding the study were that the NWEA MAP Growth reading assessment would provide valid and reliable data. The NWEA MAP Growth reading assessment was administered according to the test directions, accuracy, analysis, and interpretation of the data, as well as the validity of test proctoring. It was also assumed that all teachers utilized the same established curriculum created by the school district, for accurate comparison of materials being taught. It was assumed that the testing environments were monitored and maintained at a high-level for students to be able to give their best effort.

Research Question

Since there is a need to identify the instructional methods that are the most effective in meeting the needs of ELLs, this study examined a comparison between

remote versus hybrid instructional settings. The following two research questions were used to guide this quantitative study:

RQ1. To what extent is there an annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment, among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022)?

RQ2. To what extent is the annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment, among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022) affected by the instructional setting (remote August 2020-May 2021, hybrid August 2020-May 2021)?

Definition of Terms

The definition of terms specific to this research includes operational definitions that are defined and identified to assist the reader in an accurate understanding of the current study for terms, and interpretation of the findings of this study. The following terms are defined for the current study:

Asynchronous learning. According to Tophat Online Glossary, asynchronous learning is "a student-centered teaching method that uses online learning tools and platforms to facilitate lectures and assessment activities outside the constraints of a physical classroom" (Asynchronous learning, 2022, para. 1).

English learner (EL). The Colorado Department of Education (2019) defined an English learner as:

A student who is linguistically diverse and who is identified using the state-approved English language proficiency assessment and a body of evidence as having a level of English language proficiency that requires language support to achieve standards in grade-level content in English" (para. 11). They may also be referred to as ELLs.

English language learners (ELLs). According to Tophat Online Glossary, ELLs "are students who learn the language of instruction—English—while they learn the curriculum. ELLs' first language is a language other than English" (ELL students, 2022, para. 1).

English to Speakers of Other Languages (ESOL). KSDE (2022b) defined ESOL as services "made available to students who have a first language that is not English or have a language other than English in the home" (p. 1).

Hybrid instruction. The University of Alabama (2023) defined hybrid instruction as, "combin[ing] face to face classes with synchronous online learning to allow social distancing *and* provide some of the benefits of a face-to-face course" (para. 1).

Hybrid learning. According to Tophat Online Glossary, hybrid learning is "where students learn through a mix of in-person and online activities" (hybrid learning, 2022, para. 1). In District X, students who received hybrid learning had some in-person instruction, and some of their instruction online, remotely.

Immigrant. KSDE (2021) defined immigrant as, "a student, age 3-21, who was not born in any state, and has not been attending one or more schools in any one or more states for more than three full academic years" (p. 2).

In-person learning. According to the *Glossary of Education Reform* (2014), in-person learning is "any form of instructional interaction that occurs 'in person' and in real time between teachers and students or among colleagues and peers" (para. 1).

Northwest Evaluation Association (NWEA). According to their website, NWEA is responsible for developing the MAP Growth assessments in reading, language usage, science, and math, which is used "worldwide by creating assessment solutions that precisely measure growth and proficiency" (NWEA, 2021, p. 1).

NWEA Measures of Academic Performance (MAP) Growth Assessment. According to NWEA's website, NWEA MAP Growth is an "innovative assessment for measuring achievement and growth in K–12 math, reading, language usage, and science" (NWEA, 2023, p. 1). NWEA defined the NWEA MAP Growth reading assessment as a summative assessment that "measures what students know and what they're ready to learn next....[It] creates a personalized assessment experience that accurately measures performance—whether a student performs on, above, or below grade level" (NWEA, 2019a, p. 1).

Rasch Unit score (RIT Score). NWEA identified growth on the NWEA MAP Growth assessment by using "a scale called RIT to measure student achievement and growth. RIT stands for Rasch UnIT and is a measurement scale developed to simplify the interpretation of test scores" (Marion, 2021, para. 3). RIT scores can be used across grade levels.

Remote instruction. Center for Innovation in Teaching and Learning (n.d.) defined remote instruction as "designed in a responsive manner by Instructors and often delivered through Instructor's preferred technology to, under the circumstances, best

meet course outcomes. Typically, content and activities are developed incrementally and added regularly based on the progress of instruction" (para. 1).

Remote learning. Tophat Online Glossary defined remote learning as "where the student and the educator, or information source, are not physically present in a traditional classroom environment. Information is relayed through technology, such as discussion boards, video conferencing, and online assessments" (Remote learning, 2022, para. 1). In District X, 4th grade students received remote learning with their district-provided iPad, accessing both synchronous and asynchronous instruction, between August of 2020 to May of 2021.

Synchronous learning. According to Tophat Online Glossary, "Synchronous learning refers to all types of learning where instructors and learners engage and learn at the same time, but not necessarily in the same place" (Synchronous learning, 2022, para. 1).

Title III. KSDE (2021a) defined Title III as provided "funding to support services designed to assist and enhance English learners (ELs) including immigrant children and youth, ages 3-21, in learning English and meeting the challenging State academic content and student academic achievement standard requirements" (p. 1).

Organization of the Study

This dissertation is organized into five chapters. Chapter 1 presented the study's background, statement of the problem, purpose of the study, study's significance, delimitations, assumptions, research questions, and definition of terms. Chapter 2 presents a literature review that includes research on the effects of the pandemic on schools and on learning loss, or interrupted learning and the consequences and/or impacts

on students and families. Chapter 3 describes the methodology utilized for the current study, research design, selection of participants, sampling procedure, measurement, data collection procedures, data analysis, hypothesis testing, and limitations of the findings. Chapter 4 presents the results of the data analysis. Finally, Chapter 5 provides a summary of the study, key findings, results related to the literature, implications for action, recommendations for future research, and concluding remarks.

Chapter 2

Review of the Literature

In this review of literature, the researcher will describe the history of ELL education in the United States. Program learning models for ELLs used in the United States will also be described. Additionally, the researcher will describe the effects of school closures and disrupted instructional settings in the United States during the initial periods of school shutdowns during the 2019-2020 and 2020-2021 school years due to the COVID-19 pandemic, and the potential impacts on student academic achievement the following year. The literature review examines research regarding student access to technology and the effects on student learning in school districts with higher levels of poverty, ELLs, and minority students, as well as the disparity in parental and family support available to ELLs and non-ELL students. Finally, Chapter 2 includes a review of literature and research focused on the unique challenges faced by educators, families, and children during the initial period of change in instructional settings in American schools in response to the pandemic in the spring of 2020.

History of ELLs and Policies in the Education System Across the Country

From the very beginning of the United States, there have been a variety of different languages spoken among its people. As Richerson stated (2022), "The notion of English existing as the only language of American national identity is a fairly young idea compared to the age of the country" (p. 14). This perspective was developed alongside the development of free and compulsory schooling in the United States and restrictive immigration policies as many immigrants from non-English speaking Europe arrived in the nation (Pavlenko, 2002). Between the 1920s and 1960s, American schools adopted

English immersion policies as the main method of instruction for all, regardless of students' English language proficiency. Many ELLs were held at the same grade-level without promotion until English was mastered (Colorin Colorado, 2010). Having teachers that only spoke English, a non-native English speaker was taught all courses and content in a way that was often referred to as sink or swim. This methodology consisted of no specific programming to structure support for the ELLs in the English language, or even translation dictionaries. The students were retained in the same grade level until enough English was mastered for them to advance through the curriculum (Baker, 2006). The sink or swim method had a significant negative impact on ELLs. Baker stated that:

> Listening to a new language demands high concentration. It is tiring, with a constant pressure to think about the form of the language and less time to think about curriculum content. A child has to take in information from different curriculum areas and learn a language at the same time. Stress, lack of self-confidence, 'opting-out,' disaffection and alienation may occur. (p. 219)

As stated by Richerson (2022), "this 'sink or swim' method of instruction for ELLs lasted until 1963, when the first change occurred in the nation regarding bilingual instruction due to civil unrest in the nearby country of Cuba" (p. 15). In 1959, Fidel Castro became the communist leader in Cuba, resulting in hundreds of thousands of Cubans emigrating to the United States, mostly in Florida and other southeastern states. Between 1950 and 1960, the Mitigation Policy Institute indicated the number of Cuban immigrants in the United States increased from approximately 71,000 to 163,000 (Rusin, Zong, & Batalova, 2015). Due to the large increase in the number of immigrants, Miami-Dade County, Florida, created the first large-scale government-sanctioned bilingual

program in 1963, which quickly became known as an unofficial model for the United States. Although it was intended to be a temporary model for the Cuban immigrants to retain their language and culture, Coral Way Elementary School in Miami, Florida, implemented conversational Spanish instruction into its curriculum for both Spanish and English speakers (Everett-Haynes, 2008).

As the number of ELLs continued to increase across the southeastern part of the United States, Teachers of English to Speakers of Other Languages (TESOL) was founded. From 1963 to 1966, TESOL provided professional development for educators interested in teaching ELLs (TESOL, 2020). To this day, TESOL continues to offer professional development and conferences to educators around the world looking to improve ways in meeting the educational needs of ELLs (TESOL, 2022).

Due to the increase in ELLs, federal policies and court cases began to arise as well in the 1960s. The Bilingual Education Act (BEA), passed in 1968 was the first federal recognition that students with limited-English speaking abilities had unique educational needs. The BEA was the first legislation designating that federal funding should be provided to bilingual programs requesting support to meet those needs (Stewner-Manzanares, 1988). School districts that had a high population of low-income students were prioritized to receive funding by competitive grants that could be used for: resources to support educational programs, training for educators, parent involvement projects, and dissemination and development of materials (Garcia & Sung, 2018).

In 2001, the Elementary and Secondary Education Act (ESEA) was reauthorized as the No Child Left Behind Act (NCLB) and it included specific language about bilingual education, mandating two types of assessments for ELLs: English language

proficiency and academic content (NCLB, 2001). Each state was required to include "limited-English proficient" students as a subcategory of their academic assessment system and assess them in a valid and reliable manner. In addition, each state needed to create measurable achievement objectives to determine if ELLs were making adequate yearly progress (AYP) in their English language development and proficiency, all while meeting the same statewide academic standards as those set for native-English speakers in content areas (NCLB, 2001).

The National Association for the Education of Young Children (2009) predicted that the ELL population would increase by 40% by 2030. Due to the increase of ELLs, school districts across the country need to provide efficient and adequate education for certified ELL teachers to better meet the ELLs' needs (Goldman, 2018). The most recent reform to public education affecting ELLs was in 2015 when Every Student Succeeds Act (ESSA) replaced NCLB, which was the reauthorization of the ESEA of 1965 (ESSA, 2015). Under ESSA, equal opportunity was affirmed to all U.S. students (Transact, 2017). Both Title I and Title III funds were allocated to funding ELLs. Title I allocated funds to improve basic programs and ensure socially and economically disadvantaged students had equal opportunity and access to a quality education, whereas, Title III allocated funds to support ELLs and their families (ESSA, 2015). The Title III funding had three main requirements as it related to ELLs including (a) provide professional development to educators in educational strategies to best meet the language and academic needs of ELLs; (b) deliver activities promoting ELL family, parent, and community involvement; and (c) offer programs for ELLs to increase English proficiency and content knowledge (Transact, 2017).

Throughout the United States, Spanish was the most common language spoken by ELLs, but not in all states. In 2015, approximately three fourths of students with limited English proficiency in the United States public schools (77%) said they spoke Spanish as their primary language at home, making it the most reported language. The other languages most often spoken included Arabic, Chinese, and Vietnamese, each consisting of about 2% of all ELLs (Bialik, Scheller, and Walker, 2018). In 2019, Spanish continued to be the most spoken home language of ELLs from public schools across the nation, representing 3.9 million students, and making up 7.9 % of all public-school students (National Center for Education Statistics, 2022).

In analyzing the data of ELLs in Kansas, compared to the United States, the authors Sugarman and Geary identified in the Migration Policy Institute (2018) that, "In 2016, approximately 206,000 foreign-born individuals resided in Kansas, accounting for 7 percent of the state population—a smaller share compared to immigrants in the United States overall (14 percent)" (p. 1). Nationally, 32% of low-income children were from foreign-born parents, whereas in Kansas it was 22% of children (Sugarman & Geary, 2018). Consolidated State Performance Reports submitted a report to the federal government identifying the top languages spoken by ELLs in Kansas in 2017. During the 2015-2016 school year, Spanish was spoken by 83% of Kansas ELLs, with Chinese, Vietnamese, and Arabic having the next largest subgroups of speakers (U.S. Department of Education, 2017).

In U.S. public schools, there are more ELLs in elementary schools than in secondary schools. In 2015, two-thirds of ELLs (67%) were in grades K-5, whereas just one-third (33%) were in grades 6-12, while in comparison, 16% of kindergarteners were

ELLs, and only 4% were 12th graders. The main cause of this difference was because

many ELLs entered elementary school in kindergarten identified, and then as the students

progressed through school, the ELLS gained enough English language ability in the

upper grades to be reclassified as proficient, which resulted in them no longer being

categorized as ELL.

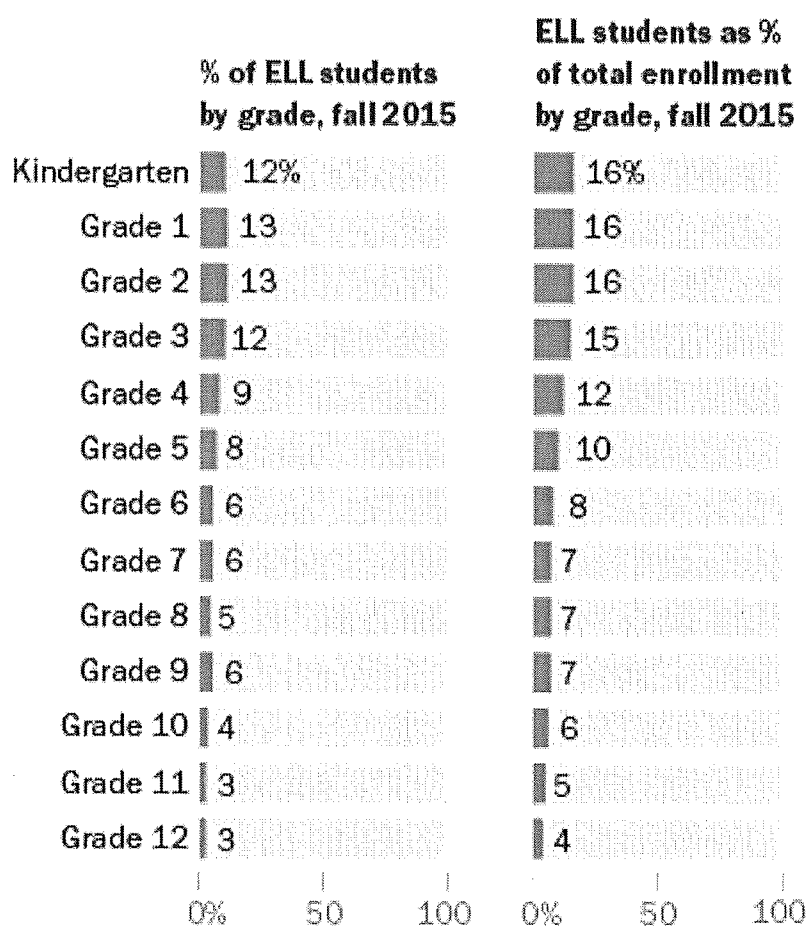|	% of ELL students by grade, fall 2015	ELL students as % of total enrollment by grade, fall 2015
Kindergarten	12%	16%
Grade 1	13	16
Grade 2	13	16
Grade 3	12	15
Grade 4	9	12
Grade 5	8	10
Grade 6	6	8
Grade 7	6	7
Grade 8	5	7
Grade 9	6	7
Grade 10	4	6
Grade 11	3	5
Grade 12	3	4
	0% 50 100	0% 50 100

Figure 1. The chart shows the percentages of ELL students at each grade level compared

with ELL students as a percentage of total enrollment at each grade level. Adapted from

6 Facts About English Language Learners in U.S. Public Schools by K. Bialik et al.,

2018.

When examining where ELLs reside, cities are more likely than rural areas to have ELLs. ELLs made up 14% of the total public-school enrollees in city school districts across the nation in the fall of 2015, compared to just 4% in rural areas. The percentage of ELLs enrolled in school districts in rural towns was 6%, and suburban areas was 9%, whereas districts that were in urban city populations of 250,000 or more had the highest percentage of ELLs at 16% (Bialik et al., 2018). A review of states with high numbers of ELLs was conducted by Bialik et al. who stated, "California has the highest number and share of English language learners in the country. More than 1.3 million ELL students in California made up 21% of the state's total public elementary and secondary school enrollment in 2015, around double the 9.5% nationwide share" (Bialik et al., 2018, p. 2). ELLs made up 10% or more of the student population in seven other states, many of which were in the Southwest: "Nevada (17%), Texas (17%), New Mexico (16%), Colorado (12%), Alaska (11%), Kansas (11%) and Washington (10%)" (Bialik et al., 2018, p. 2). The states with the lowest percentages of ELLs were Vermont (2%), Mississippi (2%), and West Virginia (1%).
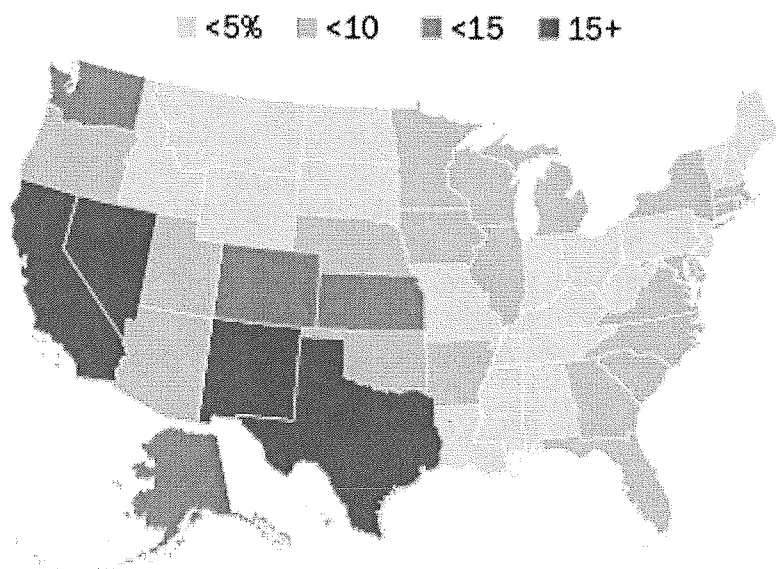
Figure 2. The map shows the number of ELL students across the country in 2015, revealing that Southwest states had the largest share of ELL students. Adapted from *6 Facts About English Language Learners in U.S. Public Schools* by K. Bialik et al., 2018.

Program Learning Models for ELLs in the United States

As the population of ELLs rapidly changed and increased throughout the United States over the past century, so have the educational program models considered best practice in meeting the needs of ELLs. As stated previously, the sink or swim method was first introduced in the 1920s, where ELLs were left to fend for themselves, being completely immersed in academics and content in the English language (Colorin Colorado, 2010). As federal and state policies changed, so did methods in meeting the needs of ELLs. Program models can most often be described under one of three categories: dual language, transitional bilingual education, and English only. Although certain program models have different names from state to state, there are specific program models that fall under each type (Sugarman, 2018). The goals of dual language

education programs are for ELLs to develop high levels of written and oral proficiency in English and their first language, cross-cultural competence, and academic content. Dual language education programs can sometimes be referred to as an additive model, where students add proficiency and literacy to a language they already speak at home (Sugarman, 2018). Two instructional program models that fall under the dual language category are Developmental (or maintenance) Bilingual, where ELLs have a common native language (e.g., Spanish) and Two-Way Immersion (or dual immersion), where classes include a mix of students who enter kindergarten speaking their first language, and others enter speaking mostly English (Sugarman, 2018). In over fifty years of research, experts have identified key characteristics of dual language programs: (1) a goal of proficiency in a first language and English; (2) extensive use of both languages; (3) an early start and duration of at least five years; (4) integration of ELLs and non-ELLs in two-way immersion, but not in the developmental bilingual programs; and (5) secondary school ELLs may take some classes through general education (Sugarman, 2018).

In comparison to the dual language approaches, Sugarman (2018) stated that, "transitional bilingual and English-only approaches are referred to as 'subtractive' models because they do not explicitly aim to support continued development in the home language and students may lose native-language skills without this additional support" (p. 4). Sugarman (2018) further stated, "In contrast to dual language, transitional bilingual education focuses on using students' native languages as a foundation for English learning" (p. 6). The transitional bilingual education model usually has the following characteristics: (1) some support for the first language is given, but English is the main focus; (2) use of the first language decreases over time; the program starting points and

lengths may vary; (3) ELLs and non-ELLs are not integrated with one another; and (4) ELL enrollment into general education may increase as English becomes more proficient (Sugarman, 2018).

Lastly, English-only models are often straightforward in defining of terms, use, and language goals. The programs usually focus solely on the development of the English language, some using the ELLs first languages in a systematic way, where the students can integrate their first language in combination with English to make connections between the two languages. In most states, English-only instruction is the default approach to ELL instruction, offering programs to ELLs at any grade level that score below proficient on English language proficiency assessments (Sugarman, 2018). Transitional bilingual programs that start later in an ELL's education may be one component of ELL support next to English-only elements like sheltered content courses, especially in an ELL's first couple of years in U.S. schools or for newcomer programs (Sugarman, 2018).

English-only program models can be broken down into different methods in which the instructional support teaches or meets the needs of the ELLs such as pull-out, push-in, ELL classroom, or co-teaching (Sugarman). In a pull-out model, ELLs may be pulled from their general education classes for additional support focusing on English language acquisition, sheltered instruction, and is usually done in an elementary setting. The focus can be on grammar, vocabulary, and communication skills (National Clearinghouse for English Language Acquisition, n. d.). With a push-in model, an ELL teacher or ESOL teacher goes into the general education classroom to offer academic support with language assistance to ELLs (KSDE, 2014b). The ELL teacher or aide can

assist with providing visual aids, clarification, or implementing instructional strategies that support the ELL (NCELA, n.d.). An ELL classroom model is more commonly used in secondary schools. In this learning model, the students are assigned to a class period specifically designated for ELLs and taught by an ELL teacher (Sugarman). Lastly, the co-teaching model takes place when an ELL specialist and a general education teacher work together to implement and plan daily lessons; this may occur in either an isolated class with only ELLs, or also in integrated ELLs and non-ELL classes (Sugarman).

Moughamian, Rivera, & Francis (2009) stated there are "many factors [that] make it difficult to develop a 'one size fits all' model of instruction for this diverse group of students. The characteristics and dynamics of the student population, classroom, school, and community all affect appropriate program selection" (p. 2). Prior to the increase in the use of remote learning during the COVID-19 pandemic, school districts were searching for the most appropriate and effective ways to meet the academic needs of ELLs. School districts across the country were choosing to eliminate pull-out approaches of instruction and intervention and replace instructional methods with more push-in support and engaging ELL instructional strategies (Gupta, 2019). However, in analyzing the data from some large city districts across the country in 2009, although there were districts that were more successful in showing academic growth of their ELLs, there was not one district that showed the ability to completely close the gap between ELLs and non-ELLs (Horwitz, Uro, Baugh, Simon, Uzzell, Lewis, & Casserly, 2009). Different instructional and learning models have been utilized and evaluated for only in-person instruction, however, as the result of the pandemic, remote learning was introduced as an alternative instructional setting, and therefore needs further investigation.

Disproportionality between Academic Skills of ELLs and non-ELLs

An examination of assessments reflects that statistically ELLs' educational performance has been considerably lower than non-ELLs in several growth areas (August & Shanahan, 2006). For example, as stated by the National Center for Educational Statistics (2020), in 2005, 75% of non-ELLs achieved or exceeded the basic reading level, compared to ELLs, where only 29% achieved or exceeded the basic reading level. In 2014-2015, only 2.4% of ELLs attained proficiency in their annual English skill assessment (National Center for Education Statistics, 2020), and between 2014 to 2020, the achievement gap between ELLs and non-ELLs in fourth and eighth grades was estimated at 40% (National Center for Education Statistics, 2020). In two studies, Hall et al. (2017) and Hautala et al. (2020), examined reading comprehension and literacy records, and were able to identify in both studies that ELLs at the elementary level declined significantly in their reading skills compared to those of non-ELLs. As the years progressed, the literacy gap between non-ELLs and ELLs increased each grade (Vaughn et al., 2017).

The achievement gap struggle between ELLs and non-ELLs is not a new problem. A policy report by Hakuta (2000) stated that "the gap illustrates the daunting task facing these students, who not only have to acquire oral and academic English, but also have to keep pace with native English speakers, who continue to develop their language skills" (p. 4). Francis, Rivera, Lesaux, Kieffer, and Rivera (2006) found that "mastery of academic language is arguably the single most important determinant of academic success for individual students" (p. 7). They further recommended that K-12 classrooms increase opportunities for ELLs to expand their sophisticated vocabulary knowledge and

be able to engage in structured, academic talk (Francis et al., 2006). Wilson, Fang, Rollins, and Valadez also supported the importance of academic language by stating, "researchers suggest that students engage in academic language defined by Nagy and Townsend (2012) as 'the specialized language', both oral and written, of academic settings that facilitates communication and thinking about disciplinary content" (p. 92). Francis et al. (2006) stated that "proficient use of and control over academic language is the key to content-area learning" (p. 7). In studies conducted 15-years apart by Duff and Wesche's (2001) and Wilson et al. (2016), there was a recognition of disparity in how frequently ELLs engaged in academic discourse in comparison to English speakers.

> In 2012, the authors Young, Lakin, Courtney, and Martiniello identified that:
>
> For Latino students, perhaps the single most significant educational challenge they face is the successful completion of high school. At present, Latino students drop out before completing high school at significantly higher rates than any other racial/ethnic group in the United States. (p. 2)

In their research, the Young et al. identified that the achievement gap between ELLs and non-ELLs began at the start of kindergarten. Although the achievement gap decreased the first two years, and it began to increase after that as the students progressed through school (2012). At the secondary level, Park (2014) noted that the school setting contributes to persistent and wide achievement gaps between non-ELLs and ELLs, which results in serious consequences for ELLs and society as a whole. She suggested that to improve language skills, ELLs' academic and literacy achievement, educators should employ strategies such as digital technology and video self-modeling, use of body language, music, family involvement, and "emotional scaffolding (a term which

combines Vygotsky's concept of scaffolding with cognizance of the role of emotion as part of the learning process)" (Watkis, 2020, p. 16).

Nationwide Disruption of Education and Response to the Pandemic

Prior to the spring of 2020, most American public schools in the United States participated in an in-person educational experience (Dorn et al., 2020b). Although there were some virtual learning experiences, it was the exception, not the norm. In March of 2020, however, most K-12 students across the nation experienced a change in their learning model from in-person instruction in traditional classrooms to a form of remote or virtual learning environments due to widespread school closures (Kuhfeld, 2021). The COVID-19 pandemic resulted in "an unprecedented and sweeping shift in the landscape of K-12 public schooling" (Hamilton et al., 2020, p. 1), as schools across the nation were forced to close and implement "distance learning supports that varied in degree and type" (p. 1). School closures affected 55.1 million students in 124,000 private and public schools in nearly every state across the nation (Map: Coronavirus and School Closures, 2020). The pandemic resulted in a shutdown that was "unprecedented in modern times" and resulted in school districts "scrambling to meet the needs of schools and families" (Kuhfeld, 2021, p. 549). The Education Research Alliance described the pandemic as the "gravest crisis the country has seen in a century" and "few institutions have been as affected as schools" (Harris et al., 2020, p. 2). Within the spring of 2020, cities, counties, and states issued stay-at-home orders; businesses were closed, and many parents began working from home while other parents juggled work in service industries or served as essential workers while their children were at home (McNicholas & Poydock, 2020).

The Brookings Institute (2020) stated that, "The pandemic has introduced uncertainty into major aspects of national and global society, including schools" (Kuhfeld et al., p. 1).

Due to state and local mandates, school districts developed remote learning environments with little oversight or consistency (Malkus, 2020b). School districts faced logistical challenges in connecting with students, providing internet and connected devices, offering online resources, providing materials for learning, training teachers in remote learning/ instruction, tracking data, coordinating remote interventions, providing special education services, and more (Harris et al., 2020). Schools were overwhelmed and unequipped in being able to handle the rapid change to remote learning (Dorn, Hancock, Sarakatsannis, & Viruleg, 2020a). Teachers, families, and students were introduced to learning models unlike any previous school experiences with little notice, preparation, or training (Gross & Opalka, 2020).

Gaining access to electronic tablets or computers with internet access became a necessity and precondition for students to be able to access their education during the pandemic (Hill, 2020). The Center for Success of English Learners stated that remote learning "has been particularly challenging for EL students" (August, Carlson, Cieslak, & Nieser, 2021, p. 2). In May 2020, the United States Department of Education (USDE) reminded states of their obligation to support ELLs. Due to limited access to necessary technology for students and families, language barriers, and lack of translated communications with families, the achievement gap between Black or Hispanic students and White students widened. During the COVID-19 pandemic school closures, the learning gap for Black and Hispanic students was widened by 6 to 12 months compared to White students (August et al., 2021). It is unclear to educators how much student

achievement was impacted by school closures and the move to remote learning and how the "rapid conversion to an online learning platform will continue to affect academic achievement" (Kuhfeld et al., 2020, para. 1).

Disparity in Parental and Family Support Available

Throughout the pandemic and phase of online learning, not all families had the most effective homeschooling environments (von Hippel, 2020). Higher-wage employees were more likely to have jobs that allowed them to work from home, which allowed for those parents to be able to offer academic support to students that were at home learning remotely (von Hippel, 2020). In fact, higher-wage personnel were over six times more likely to have flexibility to work from home than lower-wage workers (Gould & Shierholz, 2020). Although there was a perception that many parents were working from home and homeschooling their children, according to the Economic Policy Institute (EPI), less than 30% of workers in America were able to work from home (McNicholas & Poydock, 2020). There became a divide in ethnicities and economical status in terms of parents and adults that were able to work from home, and those that did not (Harris, 2020). The majority of parents at home with their children identified as White or Asian (McNicholas & Poydock, 2020), whereas less than one in five identified as Black, and one in six as Hispanic (Gould & Shierholz, 2020). Parents in white-collar jobs were more likely to have flexibility in work environments, work schedules, and technology experience (Harris et al., 2020). Unfortunately, not all parents had the knowledge, work schedule, or capacity to help their children with online learning (Garbe, Uzeyir, Logan, & Cook, 2020). Because of this, Black and Hispanic students were disproportionally represented in homes where there was no adult available to help them

schools compared to other subgroups in counties in which ELLs make up of at least 6% of the student body.
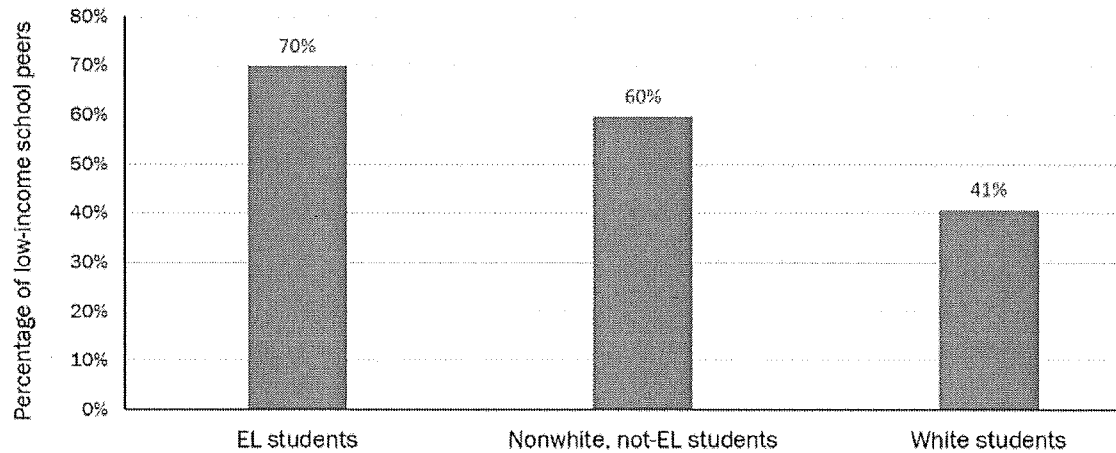
Figure 3. The figure shows that ELLs are more likely to have a greater percentage of low-income peers than non-White, or White students in the same counties who are not ELLs, and both groups are far higher than that of White students. Adapted from *As We Tackle School Segregation, Don't Forget About English Learner Students,* by D. Quintero & M. Hansen, 2021.

The differential exposure to concentrated poverty, according to a study by Stanford professor Sean Reardon (n.d.), drives racial achievement gaps to increase. Quintero & Hansen (2021) stated that "this result motivates our inquiry into how ELs may likewise be socio-economically segregated and academically suffer as a result" (para. 7). Research has shown that schools that serve a higher number of low-income students hire less-effective teachers and have fewer resources per student. Therefore, having a higher segregated population of ELLs in high-poverty schools is more likely to deter their academic success (Quintero & Hansen, 2021). Especially for younger students

in an elementary remote learning environment, it was generally expected that parents or other adults at home would take on more responsibility for their child's learning (Garbe et al., 2020). However, having parents that lack English proficiency among families with ELLs makes it difficult for the parents to become involved in school activities or help their children with homework assignments, factors that are connected to student achievement (Quintero & Hansen, 2021).

Such disparities left ELLs, Black and Hispanic students, and other students of lower-economic status at a disadvantage when receiving instruction remotely compared to other students. For many parents who had to work outside of the home, they had to choose between leaving their child or children at home alone or going to work (Abrahamson, 2020). Regardless of the learning model, parental support became dependent upon their work schedules, family socioeconomic status, level of education, and the general stress related to the pandemic (Fazlullah, 2020). In June of 2020, Education Week described schooling as follows:

> a digital leapfrog: For those that were receiving a hybrid learning model, school schedules were often changing, and parents had to manage when and where their children attended school, and when they needed to be online for live lessons, when and how to access content when school was asynchronous, and how to keep up with the constantly changing instructional models that changed from week to week. (Lieberman, 2020, para. 1)

Some parents created classrooms for their children to educate at home, while other students attended lessons from living spaces with other people, with background noise of other family members, while other students attended from their beds (Lieberman, 2020).

The learning environment for students receiving remote instruction was not the same quality or consistency among varying or different families and homes.

Disproportionality of Student Access to Technology

Other examples of disproportionality among students were the access to technology. Families and students living in poverty had less access to internet services or technology devices (Weiss, Lopez, and Caspe, 2018). There is a correlation between academic achievement and socio-economic status (SES). Weiss et al. (2018) called this the "opportunity gap" (p. 1). Before the pandemic, about 400,000 educators and 15-16 million students lacked adequate internet connectivity at their homes. This problem "disproportionately affected communities of color" (Fazlullah, 2021, p. 3). In general, students from lower SES environments perform worse on language development tasks in comparison to students from higher SES environments. Furthermore, language diversity plays an additional role as a variable, since there is a higher occurrence of poverty among minority language communities (Alt, Arizmendi, & DiLallo, 2016). In 2014, the U.S. Department of Health and Human Services identified the poverty rate for Hispanic children was 30.4% (U.S. Department of Health and Human Services, 2014). In a study by Jackson, Schatschneider, & Leacox, researchers were also able to identify a disproportionate occurrence of childhood poverty among Latino and ELLs (Jackson et al., 2014). The Migration Policy Institute reported in 2018 that, "in Kansas, 22 percent of children in low-income families had one or more foreign-born parents, compared to 32 percent of low-income children nationally" (Sugarman & Geary, 2018, p. 1).

The pandemic intensified the social divide of high-speed internet access along economic and racial lines (Gross & Opalka, 2020). During the pandemic, there were

parents who drove to parking lots to access high-speed internet from a school bus parked in a neighborhood for this purpose, or other hot spot locations (Abrahamson, 2020). Atske & Perrin (2021), through the Pew Research Center, interviewed and surveyed 1,502 American adults about digital adoption across demographic groups throughout the U.S. between January 25 and February 8, 2021. The survey covered topics on the types of internet services, dial-up or broadband, models of cellphones owned, or types of devices owned. The data revealed that Blacks and Hispanics were less likely to own desktop computers than Whites. Twenty-five percent of Hispanics stated that their primary source of access to the internet was through their smartphones. Sixty-seven percent of Hispanics surveyed owned desktop computers or laptops compared to eighty percent of Whites surveyed (Atske & Perrin, 2021). Causing more difficulties, fifteen percent of smartphone users that depended upon their phones to connect to the internet stated having difficulty paying for their cellphone service (McClain, 2021). In one study, researchers Kim & Padilla (2020), analyzed access to technology for educational purposes among low-income Latino students living in a mobile park in Silicon Valley, specifically in the Sierra Valley community before and during the COVID-19 pandemic. In analyzing the interview transcripts, Kim & Padilla identified that adequate access to technology was dependent on economic barriers that the participants faced. The economic barriers caused disparities in technology access to low-income Latino families (Kim & Padilla, 2020). Lack of proficiency in the English language and low levels of education among Latino families contributed to the gap in access to technology and internet usage. Those who spoke English (94%) were more likely to use the internet compared to 74% of those who spoke only Spanish (Kim & Padilla, 2020). Of the

parents interviewed that had school-age children, 76.4% had access to the internet,

however, only 63.5% had access to a tablet or computer. These parents either were

loaned a device from the district (50.9%) or owned a device (12.7%). In comparison,

96.4% of the city's high-income household population had at least one computer in their

possession. These results reflected the inequalities between the low-and high-income

families (Kim & Padilla, 2020). Another study conducted by Auxier & Anderson (2020),

showed that approximately 15% of households with school-aged children did not have

high-speed internet, and of those in low-income homes, the percentage went up to

approximately 35%, with an even greater lack of access in Hispanic and Black

households.

The interruption of face-to-face instruction due to COVID-19 and limited access

to the internet increased obstacles in communication and accessibility of services for

Latino students, and further impeded the relationship between Latino parents and schools,

highlighting the equity gap in technology and basic needs (Kim & Padilla, 2020). The

lack of translation services for Latino parents to support remote learning, access to the

internet, or synchronous learning models for the students also broadened the achievement

gap between Black and Hispanic students and White students (August et al., 2021). Non-

English-speaking families received limited information from schools about supporting

and managing their students during virtual learning (Latinos for Education, 2020).

Challenges to Educators Due to Pandemic-Related School Closures

In the spring of 2020, a nationwide survey was conducted where more than half of

teachers across the nation felt they were not ready to facilitate remote learning (Lotkina,

2020). In a March 2020 Forbes article, entitled *Most Teachers Say They are 'Not*

Prepared' to Teach Online, Newton (2020) stated that K-12 schooling was "blindsided by the jarring transition to online schooling" (para. 3), and that this "massive shift will have generational reverberations" (para. 1). Teachers converted their homes into classrooms for remote teaching (Goldstein, 2020), while students learned how to video conference, and use digital platforms to learn and connect with their classmates and teachers from their kitchen tables, couches, or bedrooms (Fazlullah, 2021).

At the time, district and state leaders speculated that the shutdowns would last a few weeks to a few months (Dorn et al., 2020b). However, after six months of school shutdowns, a study from the Evidence Project described schools as unprepared for the challenge of virtual learning, and in looking at instructional effectiveness, found that students were receiving little instruction that was meaningful (Gross & Opalka, 2020). The Center for Reinventing Public Education director, Lake (2021), stated that "leaders innovated on the fly," no one was prepared, and "public education will never be the same" (p. 1). In a Center for Reinventing Public Education report, titled *The Teachers are Not Alright*, researchers stated high-stress levels for all teachers, "but especially those teaching remotely and in high poverty schools, are struggling to provide instruction, engage students, manage technology, and much more" (Kaufman & Diliberti, 2021, para. 3). The report identified an increase in work levels and workload for teachers as they adapted to new learning models. Many teachers had to quickly learn new instructional management systems with technology for their districts and learn new strategies to engage students online (Kaufman & Diliberti, 2021). Kaufman and Diliberti (2021) stated, "data from one RAND American Teacher Panel survey from May 2020 indicated that nearly one-quarter of U.S. public school teachers were spending more than 30 hours

per week just on instructional planning" (p. 2). The RAND survey also found that 48% of all responding teachers reported working more than 48 hours per week. Twenty-four percent of teachers reported working 56 hours per week or more to respond to the demands of virtual teaching (Kaufman & Diliberti, 2021).

Another challenge for teachers that resulted due to the pandemic, was the change in instructional and learning models. Schools started offering different learning models, and teachers had to adapt and learn how to deliver content to students in a multitude of different ways (Kaufman & Diliberti, 2021). Across the nation, teachers balanced their method of instruction between in-person and remote delivery, or a hybrid model of instruction. The hybrid model was challenging to teachers as they had to plan ways to engage both in-person and online learners simultaneously while delivering content (Dorn et al., 2020b). For elementary-aged students, a hybrid classroom model was not ideal because of the "level of guidance, social interaction, and tactile-learning opportunities that are difficult to replicate in an online classroom" (Malkus, 2020b, p. 4).

Another factor that affected the challenges that teachers faced during this time was the demographics of the families served. School districts varied greatly in their response to the pandemic at local levels, with different offerings and expectations (Malkus, 2020a). Teachers that taught in schools with a higher population of students from lower-income and minority homes without stable broadband access, or support of adults in the home, a device to use, or a good workspace to learn, had additional challenges than students receiving hybrid instruction. In this case, students receiving hybrid instruction, were half time in-person, and half-time working from home independently (Dorn et al., 2020b). Finally, teachers faced "even more profound"

(Kaufman & Diliberti, 2021, p. 3) challenges with struggling students that delt with technology issues, family support, access to resources for social and emotional well-being, and lack of contact with families (Creemer, 2022).

Summary

This chapter outlined the history of ELL education throughout the United States, along with federal policies that related to ELL education. ELL program learning models and best practices for ELL instruction were discussed. The researcher provided an overview of nationwide responses of school districts to the COVID-19 pandemic, with a focus on elementary education. The literature review examined the shift to remote and hybrid learning for almost all public schools across the nation, affecting approximately 55 million students (Malkus, 2020a). Most studies reviewed have indicated that the educational system was ill-prepared in making the dramatic change to the delivery methods for schools (Goldstein, 2020). The literature indicated there were unique challenges for students, parents, and educators when responding to students' academic needs and access to technology, especially in districts with lower economic families and minorities. Chapter 3 describes the methodology used for the current study related to online and hybrid learning models, including the research design, selection of participants, measurement and data collection procedures, data analysis and hypothesis testing, and limitations of the study.

Chapter 3

Methods

The purpose of this quantitative causal-comparative study was to examine the effectiveness of remote instruction versus hybrid instruction in providing educational services to ELLs in a Midwestern school district in the 2020-2021 school year. The 2019-2020 school year was used as the baseline year, and the 2021-2022 school year was used as a post-COVID-19 year to be able to identify the impact that the remote and hybrid instructional year may have provided. The two instructional settings examined in this study were remote and hybrid instruction. The analyzed data consisted of the mid-year NWEA MAP Growth reading assessment achievement scores of a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022). Student achievement scores served as the dependent variable, as indicated by the assessment scores reflecting the prior year's instruction. The independent variables were the instructional settings investigated in this study (remote versus hybrid instruction). This chapter presents the methodology used to conduct the research study, including a description of the research design, sampling procedures, data collection process, data analysis and process for hypothesis testing. It concludes with the limitations of the study.

Research Design

This study was guided by a quantitative causal-comparative research design. Because two groups were compared, a causal-comparative design was most appropriate for this study. According to Creswell and Creswell (2018), in causal-comparative research, the investigator compares two or more groups in relation to the dependent variables that have already been measured. There were two independent variables used

in this study. The first independent variable included the instructional setting: 1) remote instruction, and 2) hybrid instruction. The second independent variable was the year tested and grade level: third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022). The dependent variable in this study was the student's overall reading score, as measured by the mid-year NWEA MAP Growth reading assessment.

Selection of Participants

The participants for this study were a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022) in a large suburban district in a Midwestern state. A purposive sampling procedure was used to select ELLs enrolled within the same district. Lunenburg and Irby (2008) defined purposive sampling as "selecting a sample based on the researcher's experience or knowledge of the group to be sampled" (p. 175). A student's data was included in this study if the following criteria were met:

1. The student attended third grade in the selected Midwestern district during the 2019-2020 school year, fourth grade during the 2020-2021 school year, and fifth grade during the 2021-2022 school year, and earned a score for the mid-year NWEA MAP Growth reading assessment each of those three years.

2. The student was identified as an ELL through the district's ELL database receiving services to meet his or her language needs.

Measurement

NWEA is responsible for developing the NWEA MAP Growth reading assessment. NWEA's assessments are used worldwide. They create "assessment solutions that precisely measure growth and proficiency—and provide insights to help

tailor instruction" (NWEA, 2021, p. 1). The NWEA MAP Growth reading assessment is used in all 50 states of the U.S. and in over 140 countries worldwide, with over 9 million students tested annually. Most school districts administer the NWEA MAP Growth reading assessments in the fall, winter, and spring. However, some districts choose to give the assessment or test only in the fall and spring. The assessment is adaptive and adjusts to how each student responds while taking the test. The assessment can give normative data to be able to compare each student's growth to millions of other students across the country, and in his or her own school district (NWEA, 2017). The assessment is computer-based and can be delivered through the NWEA technology application or website on electronic tablets and computers.

RIT scores from the mid-year NWEA MAP Growth reading assessment were used to measure student achievement. The NWEA MAP Growth reading assessment is a summative assessment that "measures what students know and what they're ready to learn next….[The assessment] creates a personalized assessment experience that accurately measures performance—whether a student performs on, above, or below grade level" (NWEA, 2019b, p. 1). Districts across the nation use the NWEA MAP Growth reading assessment as a tool to identify students' academic needs. Depending on the grade, the assessment evaluates different components of reading. In third through fifth grade, the grades included in the current study, the assessment identifies students' level of academic performance in the following areas: 1) literature: key ideas and details; 2) literature: language craft, and structure; 3) informational text: key ideas and details; and 4) informational text: language craft, and structure. The RIT score range is from 100 to 350. The scores can be added together to gain group or schoolwide averages and data. A

student's score can follow him/her throughout the student's years in school, indicating growth and changes from one year to the next (Marion, 2021).

Creswell and Creswell (2018) stated that validity in quantitative research is "whether you can draw meaningful and useful inferences from scores on the instruments" (p. 153). In this study, the NWEA MAP Growth RIT scores were valid scores as stated in *NWEA Connection* (2022), "A RIT score measures a student's level of achievement in a particular subject. If a student has a particular RIT score, this means that the student is about 50% likely to correctly answer an item calibrated at that RIT level" (NWEA, 2022, para. 6). As indicated in the NWEA technical manual, "Validity evidence for MAP Growth assessments involves multiple sources including test content, internal structure, and relations to other variables" (NWEA, 2019a, p. 101). The assessment is an "adaptive test with a cross-grade vertical scale that assesses achievement according to standards-aligned content" (NWEA, 2019a, p. 9), and according to Shudong, McCall, Hong, and Harris (2013), validity across grade levels is a crucial condition for interpretation of student growth based on test scores.

A Pearson correlation coefficient measures the relationship between two variables. It can be used as evidence for criterion-related or concurrent validity for the RIT scores on the NWEA MAP reading assessment by establishing that the RIT assessment scores are related to scaled scores on other established assessments (NWEA, 2019a). Evidence for the reading assessment used test-retest correlations for third through fifth grade students, which included correlations between .79 and .80 (NWEA, 2019a). These correlations provide strong evidence for the validity of the NWEA Map Growth Assessment. Since RIT scores can be interpreted across grade levels and

academic calendar years throughout different states, the results show consistency and reasonableness of interpretation (Shudong et al., 2013).

Creswell & Creswell (2018) defined test reliability as "the consistency or repeatability of an instrument" (p. 154). NWEA's technical manual (2019a, p. 10) indicated that, "The reliability of the MAP Growth assessments was examined via test-retest reliability, marginal reliability (internal consistency), and score precision based on the standard error of measurement (SEM)." The test-retest reliabilty coefficients for third through fifth grade were .862-.864 (NWEA, 2019a). These numbers provide strong evidence for the reliability of the assessments. The marginal reliabilities of the MAP assessment across the United States and all tested grades were in the 90s, which also provide evidence that it is a reliable test with high internal consistency (NWEA, 2019a).

The first independent variable was the two instructional settings investigated in this study, remote versus hybrid instruction. The second independent variable was the types of instruction that the students received, either learning remotely during the 2020-2021 school year, or learning in a hybrid setting, where students received a combination of remote and in-person learning throughout the school year.

Data Collection Procedures

Before data collection, the District X school Director of Assessment and Research, gave written consent (see Appendix B) for this study to be conducted in September of 2022, with the condition of having the study approved by Baker University's Institutional Review Board (IRB). On December 5, 2022, a request for permission to conduct the study was submitted to the Baker University IRB committee, who approved the study on December 16, 2022 (see Appendix C). The Assessment

Director of District X shared an Excel workbook with the researcher. The mid-year MAP

Growth reading assessment score data for the selected ELL cohort from 2019-2020,

2020-2021, and 2021-2022 data were coded using randomly generated numbers to ensure

the anonymity of the students. In this file, ELL students were identified as receiving

instruction in either a remote or hybrid setting. The file was merged into one tab and the

data was imported into IBM SPSS Statistics 28 for Windows for analysis.

Data Analysis and Hypothesis Testing

Data from the mid-year NWEA MAP Growth reading assessments in 2019-2020,

2020-2021, and 2021-2022 were analyzed to address the research questions in this study.

A two-factor analysis of variance (ANOVA) was conducted to test the hypotheses. This

section contains the research questions, hypotheses, and data analysis used to test the

hypotheses.

RQ1. To what extent is there an annual difference in the overall reading

achievement, as measured by the mid-year NWEA MAP Growth reading assessment,

among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021),

and the fifth grade (2021-2022)?

H1. There is an annual difference in the overall reading achievement, as measured

by the mid-year NWEA MAP Growth reading assessment, among a cohort of ELLs

enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-

2022).

A 3x2 mixed two-factor (one three-level within subjects repeated measures factor

and one two-level between-subjects factor) ANOVA was conducted to test H1 and H2.

The two categorical variables used to group the dependent variable, student overall

reading achievement, were two instructional settings (remote and hybrid) and test years: third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022). The results of the two-factor ANOVA can be used to test for differences in the means of a numerical variable among three or more groups, including a main effect for test year, a main effect for instructional setting, and a two-way interaction effect (test year x instructional setting). The main effect for test year was used to test H1. The level of significance was set at .05. When appropriate, an effect size is reported.

RQ2. To what extent is the annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022), affected by the instructional setting (remote and hybrid)?

H2. The annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022), is affected by the instructional setting (remote and hybrid).

The interaction effect from the two-factor ANOVA was used to test H2. The level of significance was set at .05. When appropriate, an effect size is reported.

Limitations

Lunenburg and Irby (2008) stated, "limitations are factors that may have an effect on the interpretation of the findings or on the generalizability of the results" (p. 133). There are two forms of limitations that may affect this study: teacher limitations, and student limitations. Some teacher limitations of this study that may affect the interpretation are differences among teachers' classroom management, years of teaching

experience, preparation, and training or types of professional development in education. Some student limitations for this study that may affect the study are classroom behavioral impacts, class size, external or individual differences among students that may affect student achievement such as motivation, absences, and finally previous student experiences prior to the testing year that are unknown. Students who received remote instruction may or may not have had the benefit of a sibling or parent overseeing their work, and connecting with their teacher (Huffman, 2020). Another limitation that may have existed is whether the student took the assessment remotely, or in-person. If the student took the assessment remotely, it is possible they may have received assistance from someone at home, which may have affected the student's scores. Finally, an additional limitation is whether teachers and/or students were wearing face masks during their time of instruction, in either environment, but especially in the hybrid setting (Billak, 2020).

Summary

Chapter 3 provided an overview of the methods used for the current quantitative study. The research design was explained in detail, and the population and sample were thoroughly introduced. Student progress during the school closures was determined by RIT scores on the mid-year NWEA MAP Growth reading assessment of a cohort group of ELLs from third through fifth grade. The mid-year composite RIT scores were examined to determine to what extent there was a differential impact by instructional setting, of remote versus hybrid instruction on student test scores. The two research questions were identified along with the hypotheses tested and description of the statistical analysis. The results of the hypothesis testing are presented in Chapter 4.

Chapter 4

Results

The purpose of this quantitative causal-comparative study was to examine the effectiveness of remote versus hybrid instructional settings in educating ELLs in a Midwestern school district in the 2020-2021 school year, as measured by the mid-year MAP Growth reading assessment among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022). The 2019-2020 school year was used as baseline score year, and the 2021-2022 was used as a post-COVID-19 year to be able to identify the impact that the remote and hybrid instructional year (2020-2021) may have provided. ELLs' NWEA MAP Growth reading assessment scores were compared prior to, during, and after the implementation of the remote and hybrid instructional settings to determine if student achievement was affected by instructional setting.

Hypothesis Testing

Data from the NWEA MAP Growth Reading assessment was received by the researcher in an Excel file format from the district assessment office and imported into IBM® SPSS® Statistics 28 for Windows. The analysis focused on two research questions. Each research question is listed below with its corresponding hypothesis, analysis paragraph, and the results of the statistical analysis procedures conducted.

RQ1. To what extent is there an annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment, among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022)?

H1. There is an annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment, among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022).

A 3x2 mixed two-factor (one three-level within subjects repeated measures factor and one two-level between-subjects factor) ANOVA was conducted to test H1. The two categorical variables used to group the dependent variable, the ELL student overall reading achievement during test years third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022) and instructional setting (remote and hybrid). The results of the two-factor ANOVA can be used to test for differences in the means of a numerical variable among three or more groups, including a main effect for test year, a main effect for instructional setting, and a two-way interaction effect (test year x instructional setting). The main effect for test year was used to test H1. The level of significance was set at .05. When appropriate, an effect size is reported.

The results of the analysis indicated a statistically significant difference between at least two of the means, $F(2, 260) = 133.817$, $p = .000$, eta squared = .507. See Table 1 for the means and standard deviations for this analysis. A follow-up post hoc was conducted to determine which pairs of means were different. The Bonferroni pairwise comparisons post hoc was conducted at $\alpha = .05$. Three of the differences were statistically significant. The third grade (2019-2020) mean ($M = 177.85$) was lower than the fourth grade (2020-2021) mean ($M = 185.81$), and the fifth grade (2021-2022) mean ($M = 194.62$). The fourth grade (2020-2021) mean ($M = 185.81$) was lower than

the fifth grade (2021-2022) mean ($M = 194.62$). H1 was supported. The effect size indicated a large effect.

Table 1

Descriptive Statistics for the Results of the Test for H1

ELL Cohort Grade Level	*M*	*SD*	*N*
Third grade (2019-2020)	177.85	14.31	132
Fourth grade (2020-2021)	185.81	14.45	132
Fifth grade (2021-2022)	194.62	13.86	132

RQ2. To what extent is the annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022), affected by the instructional setting (remote August 2020-May 2021, hybrid August 2020-May 2021)?

H2. The annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment among a cohort of ELLs enrolled in third grade, fourth grade (2020-2021), and fifth grade (2021-2022), is affected by the instructional setting (remote and hybrid).

The interaction effect from the two-factor ANOVA was used to test H2. The level of significance was set at .05. When appropriate, an effect size is reported.

The results of the analysis indicated a marginally significant difference between at least two of the means, $F(2, 260) = 2.982, p = .052$. See Table 2 for the means and standard deviations for this analysis. H2 was to some extent supported. The third grade (2019-2020) mean for students in the remote instructional setting ($M = 181.58$) was

higher than the third grade (2019-2020) mean for students in the hybrid setting ($M =$ 175.57). The fourth grade (2020-2021) mean for students in the remote setting ($M =$ 186.80) was not different than the fourth grade (2020-2021) mean for students in the hybrid setting ($M = 185.21$). The fifth grade (2021-2022) mean for students in the remote setting ($M = 198.26$) was higher than the fifth grade (2021-2022) mean for students in the hybrid setting ($M = 192.40$).

Table 2

Descriptive Statistics for the Results of the Test for H2

ELL Cohort Grade Level	Instructional Setting	M	SD	N
Third grade (2019-2020)	Remote	181.58	14.31	50
	Hybrid	175.57	13.92	82
Fourth grade (2020-2021)	Remote	186.80	15.99	50
	Hybrid	185.21	13.50	82
Fifth grade (2021-2022)	Remote	198.26	14.59	50
	Hybrid	192.40	12.99	82

Summary

The results of the statistical analysis used to address the two research questions and their related hypotheses were presented in Chapter 4. The test scores did change across the three years, and there were some differences based on the instructional setting, but the differences were not significant. Chapter 5 contains a summary of the research study, an overview of the problem, review of the methodology, including interpretation of the results and major findings derived from the study. Findings and connections to the relevant literature, implications of those findings, and recommendations for future research are also covered in Chapter 5.

Chapter 5

Interpretation and Recommendations

The findings of this quantitative causal-comparative study provided evidence for the extent there was an annual difference in the overall reading achievement among ELLs during the COVID-19 pandemic, and how the instructional setting affected the annual difference. The results were measured by the mid-year NWEA MAP Growth reading assessment, among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022) affected by the instructional setting (remote and hybrid). Presented in Chapter 5 is a summary of the study, findings related to the literature, and conclusions.

Study Summary

The present study examined the NWEA MAP Growth reading assessment scores from a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022) to identify the impact that the remote versus hybrid instructional year may have provided. In the study summary, an overview of the problem, purpose statement and research questions originally presented in Chapter 1 is reviewed. The summary also contains a review of the methodology utilized in the study and the major findings from the survey.

Overview of the problem. Prior to the COVID-19 pandemic, in 2020, hybrid and remote instructional settings were not widely practiced across the nation (Dorn et al., 2020b). When comparing effective and efficient instructional methods that meet the needs of ELLs, there is limited research, especially in comparison between remote versus hybrid instructional settings (Bowles, 2015). The pandemic resulted in a challenging

time for meeting the needs of at-risk students, including the educational needs of ELLs. Prior to the pandemic, instructional models utilized in meeting the needs of ELLs included push-in, dual language, bilingual, ELL class period, modified instruction, and pull-out programs serviced by an ESOL endorsed teacher (KSDE, 2014). However, in the Spring of 2020, over 55 million K-12 students across the nation switched to an online form of learning for the remainder of the school year or did not receive any form of instruction at all (Reilly, 2020).

In the summer of 2020, the parents in District X were given an opportunity to choose to have their child remain with remote instruction or switch to a hybrid method of instruction, which included both in-person and remote learning. Students who selected hybrid instruction received periods of quarantine and closures due to COVID-19 pandemic exposure and fluctuating infection levels resulting in the switching between instructional settings (███████████████████████). As stated by Creemer (2022), "Parents had to help students navigate between the differing expectations for each learning environment" (p. 9). This period was the first time that both remote and hybrid instructional settings were offered in this district, so research into the effectiveness of these instructional settings is needed, especially to determine the academic effects on ELLs.

Purpose statement and research questions. The purpose of this quantitative causal-comparative study was to examine the effectiveness of remote instruction versus hybrid instruction in providing educational services to ELLs in a Midwestern school district in the 2020-2021 school year, during school closures impacted due to the COVID-19 pandemic. The 2019-2020 school year was used as a baseline year, and

2021-2022 was used as a post-COVID-19 pandemic year to identify the impact that the remote and hybrid instructional year may have provided. The analyzed data consisted of the mid-year NWEA MAP Growth reading assessment achievement scores of a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022). Student achievement scores served as the dependent variable, as indicated by the assessment scores reflecting the prior year's instruction. The type of learning instruction that the ELLs received in the 2020-2021 school year was the independent variable, either receiving instruction in a remote or hybrid setting. Since there is a need to identify the instructional methods that are the most effective in meeting the needs of ELLs, this study examined a comparison between remote versus hybrid instruction across the three grade cohort grade levels.

Review of the methodology. This study was guided by a quantitative causal-comparative research design. The two independent variables used in this study included the year tested and grade level (third grade [2019-2020], fourth grade [2020-2021], and fifth grade [2021-2022]), and the instructional setting (remote and hybrid instruction). The dependent variable in this study was the student's overall reading score, as measured by the mid-year NWEA MAP Growth reading assessment. The participants for this study were a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022) in a large suburban district in a Midwestern state. A purposive sampling procedure was used to select ELLs enrolled within the same district through third, fourth, and fifth grade.

Scores from the mid-year NWEA MAP Growth reading assessment were used to measure student achievement. The NWEA MAP Growth reading assessment is a

summative assessment that "measures what students know and what they're ready to learn next…. [The assessment] creates a personalized assessment experience that accurately measures performance—whether a student performs on, above, or below grade level" (NWEA, 2019b, p. 1). Districts across the nation use the NWEA MAP Growth reading assessment as a tool to identify students' academic needs. Depending on the grade, the assessment evaluates different components of reading. In third through fifth grade, the mid-year NWEA MAP Growth reading assessment scores were used to compare the academic performance from one year to the next.

District X provided the mid-year MAP Growth reading assessment score data for the selected ELL cohort from 2019-2020, 2020-2021, and 2021-2022. The data was coded using randomly generated numbers to ensure the anonymity of the students. In this file, ELL students were identified as receiving instruction in either a remote or hybrid setting. The data was analyzed to address the research questions in this study. A two-factor analysis of variance (ANOVA) was conducted to test the hypotheses.

Major findings. The following results were obtained through the testing of H1 and H2. For H1, there was an annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment, among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022). The means for that assessment increased across the three grade levels. H2 stated that the annual difference in the overall reading achievement, as measured by the mid-year NWEA MAP Growth reading assessment among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and fifth grade (2021-2022), was affected by the instructional setting (remote and hybrid). H2 was to some extent

supported. While the difference was marginally significant, the third grade (2019-2020) NWEA MAP Growth reading assessment score mean for students in the remote instructional setting was higher than the third grade (2019-2020) NWEA MAP Growth reading assessment score mean for students in the hybrid setting. The fourth grade (2020-2021) for students in the remote setting and the fourth grade (2020-2021) NWEA MAP Growth reading assessment score mean for students in the hybrid setting was not different. The fifth grade (2021-2022) NWEA MAP Growth reading assessment score mean for students in the remote setting was higher than the fifth grade (2021-2022) NWEA MAP Growth reading assessment score mean for students in the hybrid setting.

Findings Related to the Literature

The results of data analysis for the current study showed mixed results in the analysis of the reading test scores when comparing remote versus hybrid instructional settings in an ELL cohort from pre-, during, and post-COVID 19. The literature review is included in Chapter 2. At the time the literature review was conducted, there was no existing research found regarding ELLs' academic growth related to instructional settings for which to compare these results. Much of the current research regarding ELLs' academic growth and achievement compare non-ELLs to ELLs and most often shows a higher performance by non-ELLs compared to their ELL peers (National Center for Education Statistics, 2020).

A challenge for teachers that resulted due to the pandemic, was the change in instructional settings. Teachers had to adapt and learn how to deliver content to students in a multitude of different ways (Kaufman & Diliberti, 2021). Across the nation, teachers balanced their method of instruction between in-person and remote delivery, or a hybrid

model of instruction. The hybrid model was challenging to teachers as they had to plan ways to engage both in-person and online learners simultaneously while delivering content (Dorn et al., 2020b). Teaching language and comprehension is also based on visual perception of a person's facial body language. Masks could have contributed to ELLs growth in a hybrid setting more than remotely since people were required to wear masks when in person. The students could not see the mouth formation when listening and learning the languages being presented by the teachers or other speakers (Billak, 2020). Current results support that teachers being challenged to provide services during the pandemic may have had an effect on ELL achievement, the hybrid instructional setting had less than anticipated increase in their test scores throughout the years compared to the remote instructional setting.

Horwitz et al. (2009) have studied the effects of inconsistency on increasing anxiety and how it can negatively affect learning. Consistent instruction has been shown to have a positive impact and is crucial for ELL development. As Horwitz et al. (2009) identified in their study, "improving the quality and consistency of classroom instruction benefited DISD [Dallas Independent School District] students in general and ELLs in particular" (p. 38). Therefore, in this study, it is possible that the challenge of alternating between instructional methods and the challenge it presented to teachers and students could have been a contributing factor to lower test scores for those that received hybrid instruction compared to those who received their instruction remotely.

A review of past literature reflected there was no found research similar to the current study. When comparing past research and the reviewed literature, the current study did not appear to match previous findings. Past research identified a

disproportionate number of ELL families compared to non-ELLs receiving a remote instructional setting in the home, rather than a hybrid instructional setting. The results of the current study could suggest that changes to the instructional setting impacted the academic growth in the hybrid instructional setting more than the remote instructional setting. The test scores did change across the three years, and there were some differences based on the instructional setting, but the differences were not significant. NWEA expects growth from one year to the next, an increase in RIT scores. Results of the current study indicated a higher mean in NWEA MAP Growth reading scores among remote instruction in third grade (2019-2020) and fifth grade (2021-2022) compared to those receiving instruction in a hybrid instructional setting, however the means for fourth grade (2020-2021) between remote and hybrid instructional settings were very similar. Perhaps, the unpredictability of the hybrid method, alternating between in-person to online instruction did not serve the students as well as the predictability and consistency of the complete remote instructional setting.

Conclusions

This section provides conclusions from the current research. It also identifies implications for action, and recommendation for future research. The section ends with concluding remarks.

Implications for action. In reviewing the results of the data analysis from this study, ELLs' NWEA MAP Growth reading scores were higher for those in a remote instructional setting than in a hybrid instructional setting. The hybrid instructional model was implemented at the end of the 2019-2020 school year, before continuing into the 2020-2021 school year, where students received major disruptions to learning. One may

need to consider the impact of the COVID-19 pandemic on student regression in language proficiency and reading skills, when analyzing the impact of hybrid versus remote instructional settings. As schools return to normalcy in a post-pandemic setting and students return to in-person learning, districts should consider researched best practices for teaching ELLs. Educators should provide specialized and tailored interventions in the area of reading to increase student proficiency and English reading skills. Furthermore, the current study shed light on the impact that a hybrid instructional setting, with its delivery model inconsistencies, may have had a detrimental effect on student achievement. Strategic instruction in addressing deficient or missing skills in reading is essential for ELLs in meeting the needs of their pandemic-incurred learning loss to support their future reading achievement. It may be necessary for school districts to adjust curriculum mapping for students affected during pandemic-related school closures at all levels and to account for the instructional time lost by missed hours and days of instruction, especially due to changes in the instructional setting methods. Students that were most academically impacted due to the pandemic may need to have a new learning plan that does not include the same breadth of learning standards that were taught in a pre-pandemic classroom, but rather, an adjusted curriculum map that addresses essential learning standards. More specifically, ELLs may require specific reading instruction to address the greatest areas of learning loss by a teacher that is highly trained in helping meet the need of ELLs. Districts should make it a high priority to employ teachers who have their ESOL endorsement, to be better equipped in meeting the needs of ELLs. Despite best efforts by school administration and teachers, students did not have the same number of instructional minutes during the pandemic, regardless if

they received remote or hybrid instruction. Post-pandemic, it is critical that district leaders, along with teachers, work together to promote high-quality professional development to assist in closing the lost learning gap of all students, including ELLs, to have a positive impact on student achievement. The professional development provided by districts should focus on bringing evidence-based ELL strategies into the classroom, especially during core instruction, to make the most impact in increasing the academic achievement. Furthermore, college and university teacher education programs should ensure that students in their programs are highly trained to support ELLs in their future careers, as the population of ELLs continue to grow nationwide.

Recommendations for future research. Further insight might be gained from qualitative research on ELLs' and ELL teachers' perceptions and preferences on various types of instructional models. The acquisition of middle or high school students' and teachers' perspectives could provide valuable insights into the development of effective programs promoting academic growth and language proficiency. Looking for ways to provide a consistent hybrid setting would be beneficial. Having the advanced notice of what to expect, and being able to prepare and adjust may increase the consistency of what to expect for those involved. Furthermore, not losing instructional time due to isolations, or quarantine may reduce gaps or time lost transitioning back and forth could have an impact on test scores for those receiving a hybrid instructional setting. Comparing the effects of masking versus no-masking would also be beneficial, to determine if masks may have had an impact on students' academic achievement.

This study was limited to an elementary school cohort, specifically focusing on third through fifth grades. Additional insights could be gained by replicating this study

with participants from middle or high school. Changing the studied age group could provide information regarding the impact of an ELL's age in academic and language proficiency, with a focus in reading. The study could be replicated in a different school district, to be able to compare the effects of instructional settings (remote versus hybrid) in another setting. Further investigation could be conducted to disaggregate by ethnicity and socio-economic status of ELLs in various instructional settings. Past studies have shown that the majority of parents at home with their children during the pandemic identified as White or Asian (McNicholas & Poydock, 2020), whereas less than one in five identified as Black, and one in six as Hispanic (Gould & Shierholz, 2020). It could be revealing if a different study expanded on the demographical breakdown of the current study, or another comparable one. The current study did not encompass such an examination of ELL ethnicities.

Another recommendation for future research would be to replicate the current study in mathematics or science. Research could be conducted comparing mid-year data on NWEA MAP Growth math alone, or also with science assessment RIT scores. Such a study could use the same cohort, or a different group of students with similar attributes.

Finally, a recommendation for future research would follow this study's cohort as they progress through school and assess if there are any long-term effects caused by pandemic-related school closures. Long-term effects may be evident if the ELL cohort's scores did not progress or grow as expected by NWEA benchmark scores for each grade level. Such a study could be conducted through a quantitative data analysis.

Concluding remarks. The COVID-19 pandemic had life-altering effects on many people throughout the world. The effect that the pandemic had on education has

been substantial and wide-ranging. Students from this study's cohort, along with others, returned to a classroom for in-person learning during the 2021-2022 school year with an instructional setting that appeared like that of pre-pandemic classrooms. However, all students suffered academically during the pandemic. Although students returned to school to receive in-person instruction, the loss of academic achievement will most likely have a lasting impact. Students may have experienced trauma or loss of life skills during the pandemic leading to even greater challenges for educators to meet the needs of all students.

During the pandemic, many students were disconnected from the social setting and peers that schools provide. School closures and interrupted instruction took a toll on almost all individuals involved, educators, families, and students (Creemer, 2021). Research is surfacing regarding implications of the emotional and social effects of such isolation (Reilly, 2020). With an estimated 55 million public school students affected by remote and hybrid learning, the long-term effects of social isolation and the associated emotional and academic effects may never be fully known (Creemer, 2021). As districts, educators, families, and students create a new normal instructional setting post-pandemic, the education community can learn from the results of remote and hybrid instructional settings used during the COVID-19 pandemic and be better equipped to meet the needs of all students in the future.

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Appendices

Appendix A: Request for Data from District X

September 4, 2022

To Whom it May Concern,

I am writing in request of non-identifiable archive NWEA Reading MAP data for the midyear assessment scores for the school years of 2019-2020, 2020-2021, and 2021-2022 for ELL students across the district that have been enrolled all three school years, first in 3rd grade during the 2019-2020 school year, and then the two following years after (4th grade and 5th grade). I would also like to request the students be identified if they received remote instruction, or hybrid/in person instruction during the 2020-2021 school year.

The purpose of my request in to compile the data for my dissertation, *Effectiveness of Remote Versus Hybrid Instruction Methods for English Language Learners,* and identify if there is a difference in reading MAP growth for those instructed remotely, versus in a hybrid model. My research questions are the following:

RQ1. To what extent is there an annual difference in the overall reading achievement, as measured by the mid-year MAP Growth reading assessment, among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and then fifth grade (2021-2022)?

RQ2. To what extent is the annual difference in the overall reading achievement, as measured by the mid-year MAP Growth reading assessment, among a cohort of ELLs enrolled in third grade (2019-2020), fourth grade (2020-2021), and then fifth grade (2021-2022) affected by the instructional setting (remote August 2020-May 2021, hybrid August 2020-May 2021)?

I believe this data aligns with the district's Strategic Plan, by meeting one of the goals of helping every student achieve academic success through a challenging, relevant, and personalized learning plan.

I will keep the data secure on a password protected device so that it is secure. The data will be analyzed using a two-factor ANOVA to test the hypothesis.

Sincerely,

Laura De Adder

Baker University

Appendix B: District X Research Project Approval

Project Screening Action – District Level

To: Laura De Adder

From: ▨▨▨▨▨
        Assessment & Research

Date: 9/8/2022

Project Title: Effectiveness of Remote Versus Hybrid Learning Models for English
            Language Learners

Your research project has been reviewed and the project has been:

x	approved
	not approved
	conditional approved based in changes to be made

Clarification/Comments:
    ▨▨▨▨▨will provide an archival de-identified data file per specifications requested.

This project has been assigned the following number for identification purposes:

    Project Number: 2023_15_LD

Please submit a copy of the completed project to our office.

If further clarification is needed concerning this action, please contact:

        ▨▨▨▨▨▨▨▨▨
        Assessment & Research
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Appendix C: IRB Letter of Approval

Baker University Institutional Review Board

December 16th, 2022

Dear Laura De Adder and Denis Yoder,

The Baker University IRB has reviewed your project application and approved this project under Exempt Status Review. As described, the project complies with all the requirements and policies established by the University for protection of human subjects in research. Unless renewed, approval lapses one year after approval date.

Please be aware of the following:

1. Any significant change in the research protocol as described should be reviewed by this Committee prior to altering the project.
2. Notify the IRB about any new investigators not named in original application.
3. When signed consent documents are required, the primary investigator must retain the signed consent documents of the research activity.
4. If this is a funded project, keep a copy of this approval letter with your proposal/grant file.
5. If the results of the research are used to prepare papers for publication or oral presentation at professional conferences, manuscripts or abstracts are requested for IRB as part of the project record.
6. If this project is not completed within a year, you must renew IRB approval.

If you have any questions, please contact me at npoell@bakeru.edu or 785.594.4582.

Sincerely,

Nathan Poell, MLS
Chair, Baker University IRB

Baker University IRB Committee
Tim Buzzell, PhD
Nick Harris, MS
Scott Kimball, PhD
Susan Rogers, PhD